Data Professionals Survey Dashboard

Project Handout

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Data Professionals Survey

Data science and associated careers are booming; hence, this project aims to delve into the work and life of Data Professionals. Here, real-world data collected through surveys is utilized, providing comprehensive information covering major aspects of professionals working in this field.

Microsoft Excel and Power BI have been employed in this project for data cleaning, interpretation, and creating visualizations/dashboards.

The primary objective here is to construct an extensive dashboard that not only filters but also visually presents various aspects of the work and life of Data Professionals. This dashboard is carefully crafted so that information can be retrieved to help deduce informed decisions. It displays various metrics and indicators to provide a deeper dive into the data field and also serves as a career guide.

Dataset

The data collection was conducted by Alex the Analyst through surveys on LinkedIn and Twitter. The dataset is available on the GitHub repository and can be downloaded [Here](#).

The **raw dataset** is provided in the form of an Excel file. Data collection took place in June 2022 and includes 630 participants, each represented by a unique ID.

The dataset consists of 630 rows and 28 columns, covering demographics, education, professional details, indicators of happiness, and other pertinent information, providing a comprehensive overview of multiple facets.

During the **data cleaning** process, one outlier was identified, and several columns that were outside the scope of this project were removed. Column names were revised for clarity and ease of understanding.

Extensive data cleaning and preprocessing were conducted to ensure accuracy and uniformity in the data format.

The cleaned dataset is also available as an Excel file in the data folder, containing 629 rows and 19 columns of data.

Approach

The points below outline the approach adopted in this project:

1. Initially, redundant columns outside the scope of the project were removed after exploring the data. Column names were then renamed for ease of understanding.
2. Excel and Power Query were employed during the data cleaning and preprocessing stages.
3. The data preprocessing phase consumed the majority of the time, ensuring data cleanliness, accuracy, and uniformity in the information format.
4. Power BI Desktop was utilized to create all visualizations and the dashboard.
5. Various visualization types such as bar charts, column charts, pie charts, tree maps, number cards, and gauges were utilized to develop a comprehensive dashboard.
6. The dashboard design reflects an executive and formal theme.

Sample Dashboard
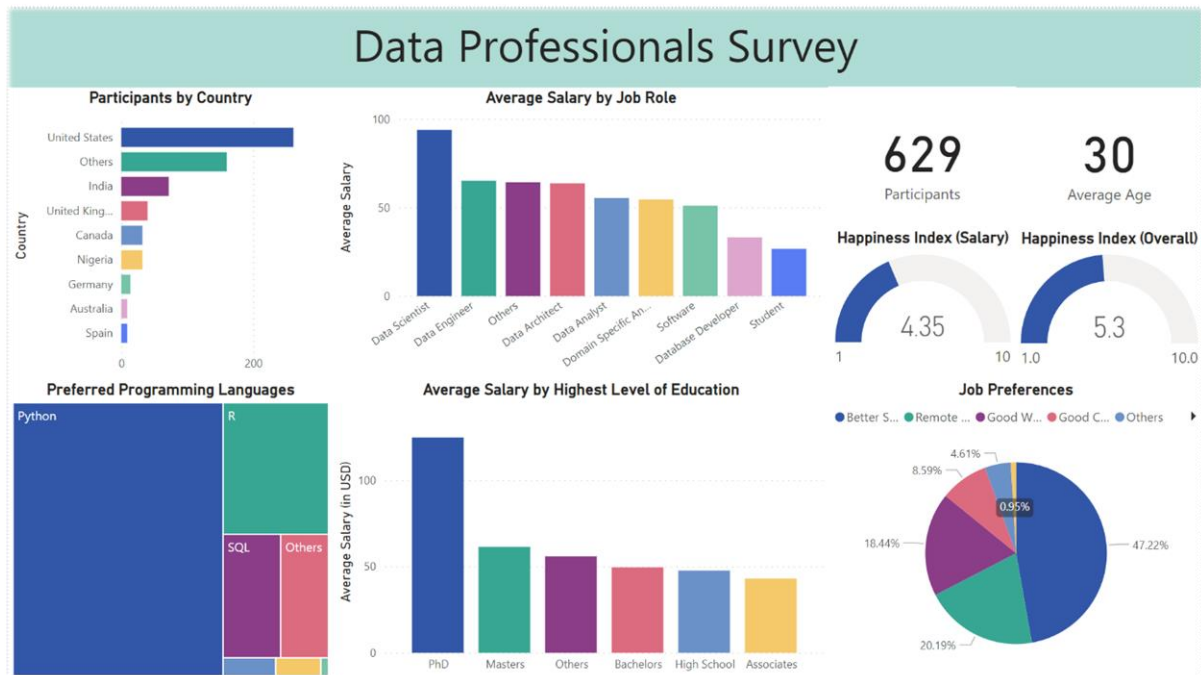
Summary

The dashboard displays the average salary of participants by job role and highest qualification, along with the number of participants, their average age, job preferences, country, and several indicators of happiness. Each chart can be further filtered to show data under diverse conditions and needs.

For instance, the majority of respondents are from the United States of America. After better salary, they prioritize remote work and work-life balance, and they prefer Python as their favourite programming language. In this context, Data Scientists and PhD holders earn the highest salaries, followed by Data Engineers and Master's degree holders.

Conclusion

The dashboard offers a comprehensive visual representation of the required information, which can be filtered according to specific needs and relevant metrics.

As exemplified in the summary, numerous insights particular to our requirements and needs can be derived.

This facilitates informed decision-making and provides valuable career guidance.